

the sides of the containing Jar: others standing up, or growing an end, out of the bottom, of which I have taken notice of a very great variety. But above all the rest, it is a very pretty kind of Germination which is afforded us in the Silver Tree, the manner of making which with Mercury and Silver, is well known to the Chymists, in which there is an Ebullition or Germination, very much like this of Mushrooms, if I have been rightly inform'd of it.

Fourthly, I have very often taken notice of, and also observ'd with a *Microscope*, certain excrescencies or Ebullitions in the snuff of a Candle, which, partly from the sticking of the smoaky particles as they are carry'd upwards by the current of the rarify'd Air and flame, and partly also from a kind of Germination or Ebullition of some actuated unctuous parts which creep along and filter through some small string of the Week, are formed into pretty round and uniform heads, very much resembling the form of hooded Mushrooms, which, being by any means expos'd to the fresh Air, or that air which encompasses the flame, they are presently lick'd up and devour'd by it, and vanish.

The reason of which *Phænomenon* seems to me, to be no other then this:

That when a convenient thread of the Week is so bent out by the sides of the snuff that are about half an Inch or more, remov'd above the bottom, or lowest part of the flame, and that this part be wholly included in the flame; the Oyl (for the reason of filtration, which I have elsewhere rendred) being continually driven up the snuff, is driven likewise into this ragged bended-end, and this being remov'd a good distance, as half an Inch or more, above the bottom of the flame, the parts of the air that passes by it, are already, almost satiated with the dissolution of the boiling unctuous steams that issued out below, and therefore are not onely glutted, that is, can dissolve no more then what they are already acting upon, but they carry up with them abundance of unctuous and sooty particles, which meeting with that rag of the Week, that is plentifully fill'd with Oyl, and onely spends it as fast as it evaporates, and not at all by dissolution or burning, by means of these steamy parts of the filterated Oyl issuing out at the sides of this rag, and being inclos'd with an air that is already satiated and cannot prey upon them nor burn them, the ascending sooty particles are stay'd about it and fix'd, so as that about the end of that rag or filament of the snuff, whence the greatest part of the steams issue, there is conglobated or fix'd a round and pretty uniform cap, much resembling the head of a Mushroom, which, if it be of any great bigness, you may observe that its underside will be bigger then that which is above the rag or stem of it; for the Oyl that is brought into it by filtration, being by the bulk of the cap a little shelter'd from the heat of the flame, does by that means issue as much out from beneath from the stalk or downwards, as it does upwards, and by reason of the great access of the adventitious smoak from beneath, it increases most that way. That this may be the true reason of this *Phænomenon*, I could produce many Arguments and Experiments to make it probable: As,

First, that the *Filtration* carries the Oyl to the top of the Week, at least

as high as these raggs, is visible to one that will observe a burning Candle with a *Microscope*, where he may see bubbling of the Oyl, as high as the snuff looks black.

Next, that it does steam away more then burn; I could observe a dim burning of a Candle, the longer the snuff be without an abundance of vapours out of the higher parts of it.

And, thirdly, that in the middle of the flame of the top of the snuff, the fire or dissolving principle is nothing as neer the bottom and out edges of the flame, which may be seen the burning asunder of a thread, that will first break at the edges of the flame touch, and not in the middle.

And I could add several Observables that I have taken from the flame of a Lamp actuated with Bellows, and very many more to confirm me in my opinion, but that it is not so much to me as it is to you, which is onely to consider this concret in the snuff or flame, as it has any resemblance of a Mushroom, to the confirmation of that I may return, I say, we may also observe:

In the first place, that the droppings or trillings of Ice in Vaults under ground, seem to constitute a kind of *petrification*, almost like some kind of Mushrooms inverted, in so much that some knobb'd a little at the lower end, though for the most part they are otherwise shap'd, and taper'd towards the end, which seems to be from no other reason but this, that the water passing through the earth and Lime (for I guess that substance to have a *petrifying* quality) does so impregnate it self with that hanging in drops in the roof of the Vault, by the soaking of the water is but slow, it becomes expos'd to the air by the outward part of the drop by degrees grows hard, and the water gradually evaporating the stony particles in the drop begin to touch, and by degrees, to dry and harden, and at length constitute a crust or shell about the drop, which by degrees, being more and more supply'd with water longer and longer, and the sides harden thicker and thicker, till at length, that hollow or pith becomes up, and solid: afterwards the soaking of the *petrifying* water longer a passage through the middle, bursts out, and the drop, outside, and as the water evaporates, leaves new space for which more and more swell the bulk of those Iceicles, which receive the great supply from the Vault, of *petrifying* water, and grow bigger and bigger next to the Vault, and taper or shew point; for the access from the arch of the Vault being consequently the water being spread very thinly over the Iceicle, the water begins to settle before it can reach the corner end of it; whence, if you break one of these, you may imagine it a stick of Wood *petrify'd*, it having so prettily a pith and grain, and if you look on the outside of a whole, you would think no less, both from its veget